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The Relationship Between Self-Concept and Certain Academic, Vocational, Biographical, and Personality Variables of Entering Male Freshmen at a Major Land Grant University.

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The relationship between the self-concepts and certain academic, vocational, biographical, and personality variables of freshmen students was examined to provide the basis for a more scientific approach to academic-vocational counseling. The subjects completed the Self-Rating Scale, the Fascism Scale, and the Military Ideology Scale, and a student information card. Scores from the Scholastic Aptitude Test were used for predictive and correlational purposes. The study revealed (1) there appeared to be no significant differences in scholastic aptitudes between low self-concept students and high self-concept students; (2) the civilian students were more authoritarian than the military student; (3) there was no significant difference in the total mean self-concept scores of students classified as underachievers and those classified as overachievers; (4) no significant difference was noted between the total mean self-concept scores of students whose fathers attended college and those students whose fathers did not; and (5) students who selected military status were more favorable to military ideology than were students who selected civilian status. Recommendations for further research are made. Administrators at Texas A&M University are considering incorporating some of the findings of this study into the school's academic-vocational counseling program. (CJ)

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THE RELATIONSHIP BETWEEN SELF-CONCEPT AND CERTAIN ACADEMIC, VOCATIONAL, BIOGRAPHICAL, AND PERSONALITY VARIABLES OF ENTERING MALE FRESHMEN AT A MAJOR LAND GRANT UNIVERSITY

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by
JOHN LESLIE BADGETT, JR.

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J. L. B.

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CHAPTER I

INTRODUCTION TO THE PROBLEM

Significance of the Study

Each year there are many capable students who prematurely terminate their college careers. Farnsworth (1959) found from his sample that there is reason to believe that more than half of those students drop out of college because of emotional difficulties. In many instances these difficulties are induced by disparaties between the self-concept (the nucleus of personality - Rogers, 1951) and curriculum and/or vocational choices. Often freshmen are either undecided about a future occupational choice or they have an unrealistic idea about their chosen future vocation. As a result, there is a tendency for them to select a curriculum that is incompatible with their aptitudes and interests. Such incompatibility may cause students to drop out of college or, perhaps worse, it may cause them to prepare for and enter a vocation for which they are psychologically unsuited. Sand and others (1960) contend that this problem will not be alleviated until there is a more complete guide for curriculum decision-making.

One of the central themes of Havighurst's *Developmental Tasks and Education* (1954) centers around the thesis that achievement of an occupational task identity is the central developmental theme in the lives of young people.

If students are unable to achieve occupational task identity, research indicates that personal adjustment problems may well arise. Iffert and Rossi (1957) found that those freshmen who are undecided about an occupational future are more likely to become college dropouts than are those students who have at least temporarily committed themselves to a future occupation. Erikson (1956) reports that an early and realistic commitment to a vocation not only helps the student achieve better in college but it also enables him to adjust better to his vocation. Much of the shifting of majors done by college students is brought about by distorted or obscure ideas which they have about their future occupation (Beardslee and O'Dowd, 1961). This distortion and obscurity can easily result in an unstable vocational direction. Undoubtedly, a more scientific approach to vocational counseling will not only decrease the number of college dropouts, but it will also assist students in making a more realistic vocational decision.

Wattenberg (1966) reports that the importance of self-concept in academic achievement is definitely acknowledged by educators. He laments, however, the fact that little research has been directed toward revealing the extent to which a person's self-concept affects his achievement and curriculum choice. It is anticipated that the results of this study will improve the effectiveness of academic-vocational counseling by showing the relationship of self-concept to certain academic and vocational variables. Roe (1956) views occupations as a means of satisfying man's psychological and physiological needs. A study by Sanford (1959, p. 599) supports Roe's view. He found that with a significant sample that, ". . . an occupation, is for most Wesleyan men, the means by which they will attain a given mode of living, and only secondarily a set of skills and responsibilities."

Statement of the Objective

The study has one rather inclusive purpose and five specific null hypotheses for ameliorating the conditions which produce academic failures and adjustment problems. The major purpose is: To examine the relationship between the self-concepts and certain academic, vocational, biographical, and personality variables of freshmen students in order to provide the basis for a more scientific approach to academic-vocational counseling. However, certain terms will be defined before the hypotheses are stated, and the instruments which were used in testing the hypotheses will also be discussed.

Definition of Terms

self - a pattern of conscious values and perceptions which a person has about himself.

ideal self - that which a person would like to be.

self-concept - the attitudes and feelings a person has about himself; synonymous to "self."

low self-concept - negative attitudes and feelings about oneself; operationally defined as being in the lowest third of the tested population, as measured by the "Self-Rating Scale" (Hope, 1960).

high self-concept - positive attitudes and feelings about oneself; operationally defined as being in the highest third of the tested population, as measured by the "Self-Rating Scale."

reported self - those attitudes and feelings which a person reveals about his "self" on a questionnaire.

authoritarianism - a general tendency for an individual to feel hostile toward people whom he believes to be violating conventional norms (Adorno, *et*.*al*., 1950).

equalitarianism - an individual's general absence of hostility toward people whom he believes to be violating conventional norms.

personality - "The consistent establishments and procedures which are manifested over and over again (together with some unique or novel elements) in the internal and external proceedings which constitute a person's life" (Murray, 1953, p. 30).

overachiever - a student who has a midsemester grade point ratio of at least 0.3 of a grade point above his predicted grade point ratio. This is an arbitrarily selected percentage.

underachiever - a student who has a midsemester grade point ratio of at least 0.3 of a grade point below his predicted grade point ratio. This is an arbitrarily selected percentage.

Description of Instruments

"Self-Rating Scale" (Hope, 1960). The "Self-Rating Scale" is a self-reporting scale based on the individual's self-concept, self-acceptance, and ideal self. Split-half reliability was calculated for the self-rating by administering the instrument to 150 entering freshmen at Baylor University. The reliabilities are as follows:

Self-Concept	0.94
Self-Acceptance	0.97
Ideal Self	0.95

"Fascism Scale" (Adorno, *et*.*al*., 1950). The "Fascism Scale" is an attempt to measure antidemocratic tendencies at a fairly deep personality level. The

reliability of the instrument is 0.91.

"Scholastic Aptitude Test" (College Entrance Examination Board, 1967). The "SAT" is a three-hour objective test designed to measure verbal and mathematical skills. It is used with high school grade point averages for predicting college academic performance. Test-retest reliability coefficients for verbal and mathematical skills are 0.90. Scores on the "SAT" are expressed in numerical form on a scale ranging from 200 to 800. The standard error of measurement for both the verbal and mathematical sections is 30.

Military Ideology Scale (Altman, 1967). This instrument is an attempt to measure an individual's acceptance of military ideals from an officer's point of view. Questions were taken directly from *The Air Officer's Guide* (1962). Professional military men assisted in the construction and validation of the instrument. Split-half reliability was computed by administering the instrument to 75 freshmen students. The reliability is 0.94.

Statement of Null Hypotheses

The five null hypotheses which were tested are as follows:

1. There will be no significant differences with respect to scholastic aptitudes by Colleges between students with low self-concepts and students with high self-concepts.
2. There will be no significant difference between the total mean score of the civilian students and the total mean score of the military students obtained from the "F-Scale."
3. There will be no significant difference between the total mean self-concept score of those students classified as underachievers and the total mean self-concept score of those students classified as overachievers.
4. There will be no significant difference between the total mean self-concept score of those students whose fathers attended college and the total mean self-concept score of those students whose fathers did not attend college.
5. There will be no significant difference between the mean score of the civilian students and the mean score of the military students obtained from the "Military Ideology Scale."

Procedures

Collection of data. All male freshmen students entering

Texas A&M University during the summer orientation program of 1967, were tested in groups not exceeding 125. In order to test all members of the population (approximately 1,500 freshmen) there were two one-hour testing periods twice a week from June 1 to August 31, 1967. Of the number tested, 723 were used in the study. The remainder of the tested population was not used in the study because of failure to complete any one of the following opinionnaires: "Self-Rating Scale", "F-Scale", or "Military Ideology Scale." Mid-semester grades were computed in November, 1967, for the confirmation or rejection of hypotheses regarding achievement.

Pertinent biographical data were obtained from the students so that comparisons could be made with other variables which will be described later. The biographical data obtained from the students were:

a. Educational status of male parent
b. High school grade point average
c. College curriculum choice
d. Corps or civilian status

Scores from the "Scholastic Aptitude Test" (*College Entrance Examination Board*, 1967) were used for predictive and correlational purposes. Data for testing the five hypotheses included the students' self-concepts, authoritarianism or equilitarianism, and military ideology. The data were obtained by using the following instruments and sources:

a. "Student Information Card" (for biographical information and high school grade point average).

b. "Fascism Scale" (Adorno, *et.al.*, 1950).

c. "Self-Rating Scale" (Hope, 1960).

d. "Scholastic Aptitude Test" (*College Entrance Examination Board*, 1967).

e. "Military Ideology Scale" (Altman, 1967).

Before discussing the research design, the detailed use of the data gathering sources, the employment of the instruments, and the statistical treatment of the data, a review of the literature underlying the basis for the research will be given.

CHAPTER II

REVIEW OF THE LITERATURE

Background Literature

The role of the self as a director of behavior had its early beginnings in the writings of William James (1890). He defined the self as the sum total of what a man is - his body, idiosyncrasies, and abilities; his likes and dislikes; his vocation, and all else that an individual can call his. Contemporary psychologists have modified James' definition to focus upon a person's attitudes and feelings about himself. Sullivan (1947, 1953) defines self-concept as the culmination of all the experiences of the individual. He continues by stating that every experience which a person has received plays a part in enabling him to distinguish himself from others. Later, the individual's experiences articulate personal awareness and evaluation. Sullivan further contends that self-concept does not develop as a result of the person's actual experiences but, rather, as a result of his interpretation of his experiences. On the basis of these assumptions the researcher asserts that self-concept constantly strives for equilibrium, perceiving as threats any experiences which are inconsistent with the self-structure. According to this point of view, regardless of whether the individual has a high or low self-concept, he will strive for equilibrium within the self-structure.

McCandless (1967) defines the self as a set of expectancies coupled with the individual's evaluation of his behavior with reference to these expectancies. He further asserts that all but the very young have formed some concept of themselves as people. Havighurst (1954, p. 4) maintains that the self, ". . . emerges from the interaction of organizational and environmental forces. As the self evolves, it becomes increasingly a force in its own right in the subsequent development of the individual." Supporting McCandless' and Havighurst's descriptions of the self, Coleman (1960) posits that the self incorporates the individual's perception of what he believes himself to be, his value of himself as a person, and his aspirations for growth and accomplishment. From this point of view, the self may be regarded as the core of the individual's frame of reference: that is to say, his assumptions concerning facts, his values, and his possibilities.

Combs and Snygg (1959) contend that all behavior is determined by the experiences of which the individual is aware at the moment of action. The authors continue by reporting that the individual does not respond to an objective reality but, rather, he responds to situations as he perceives them. Thus, the effects of a particular environment are dependent upon the way in which they are experienced by the individual (p. 17).

Closely correlated with Combs and Snygg's definition of self is Mead's (1934) "social self." It is Mead's position that the self is enhanced only in so far as the individual can take the attitudes of another and act toward himself as others act. Sherif and Cantril (1947) devote much of their book to explaining the activated self as an energizer, director, and controller of behavior.

It is Carl Rogers (1951, 1954, 1959) who has synthesized those previously mentioned concepts of the self into one of the most widely accepted self theories of today. For Rogers, the self consists of a pattern of conscious perceptions and values of the "I" or "me." The self has numerous properties, some of which are these: (a) it develops as a result of the person's environmental experiences, (b) it may introject and perceive the values of other people in a distorted way, (c) it strives for balance, (d) it directs the behavior of the organism, and (e) it perceives as threats experiences that are inconsistent with the self-structure. Rogers also postulates that since the self is affected only by those experiences which it consciously perceives, voluntary information emitted by the individual is usually the best source of information about him. However, it should be remembered that when requesting voluntary information from an individual, precautionary procedures should be taken to remove inhibitions and threats which may cause him purposefully to emit faulty information about himself. In a group testing situation such procedures may include having the subjects identify themselves by their permanent student number rather than by name, as well as including a written form stating that no person will at any time be identified by name, even by the researcher.

Currently most educational-vocational theoreticians and practitioners are very much aware of the influential role played by the self in the selection and achievement of academic and occupational undertakings. Tiedeman and O'Hara (1961, 1962, 1963) view occupational selection and development as an intricate part of the continuing process of ego-identification. Holt's (1965) research indicates that an individual's self-concept influences the extent to which he is capable of relating to the curriculum. Super (1951, p. 111) maintains that, ". . . a well formulated self-concept, which takes into account the realities of the working world, makes for an easier transition from school to work than does a hazy or unrealistic concept of the self." Super and his associates (Super, 1963; Super and Bachroch, 1957; Super _et_._al_., 1957; Super _et_._al_., 1960; Super _et_._al_., 1963) also purport that the individual will function more effectively in an occupation which is consistent with his concept of himself than in one which is inconsistent. Such a self-concept exists when there is a moderately small discrepancy between the person's description of what he would like to be (ideal self) and what he actually believes himself to be (Wylie, 1961). Hoppock (1963) reinforces this position further by stating that regardless of whether the self-concept is realistic or fanciful it tends to affect vocational choices.

There seems to exist in the literature a continual recurrence of certain assumptions regarding the self. Most self theoreticians view the self basically as a person's attitudes and feelings about himself. These attitudes and feelings, reflecting the individual's interpretation of all his experiences, are fused into a core which serves as the individual's frame of reference from which he evaluates himself and his cognitive field. Hence, the self as director, controler, and energizer of behavior influences the selection and success of academic and vocational commitments.

Related Research

Much research has disclosed that the self, in many instances, is an influential factor in the selection and success of goal-directed behavior. Ausubel and Ausubel (1963) purport that intellectual development is influenced by certain affective or motivational factors such as the student's self-concept, his self-acceptance, and his attitude toward his curriculum. McCandless (1967) discloses that on the basis of his research, it can be predicted that low self-concepts, so often indicating an individual's lack of confidence in facing and mastering his environment, will accompany underachievement. Cowen (1957) and Cartwright (1956) found that discrepancies between the reported self and the ideal self create difficulties in learning situations. Mitchell (1959) measured the self-concepts of 100 freshmen and sophomore college students and correlated their anxiety scores with their self-concept scores. The results of the study significantly indicate that the higher the self-concept, the less the anxiety. Lipsitt (1958) found that early adolescents who had low self-concepts were more anxious than those with high self-concepts. Palermo, Castaneda, and McCandless (1956) correlated self-concept with anxiety in a study with subjects having similar intelligence scores. Those subjects with low self-concepts were not only more anxious than the subjects with high self-concepts, but they also did more poorly in "complicated school subjects" (p. 338).

Shaw (1963) did a study with students having I.Q.'s of 110 or higher. On the basis of academic achievement (grades), he separated the students into two groups - underachievers and achievers. The results of his study revealed that the underachievers had lower self-concepts than the achievers. Stillwell (1966) found a positive correlation between high self-ratings and achievement.

A study by Fink (1962) disclosed results similar to those of Shaw and Stillwell. With students grouped homogeneously according to I.Q., it was found at a significant level of confidence that high self-concept is related to high academic achievement and low self-concept is related to low academic achievement. Hill and Sarason (1966) in a similar study also found a high positive correlation between self-concept and school achievement.

Concurring results were revealed in a study by Brookover, Paterson, and Thomas (1962). The purpose of the research was to determine the relationship between self-concept of ability and actual school achievement. To determine this relationship, 1,050 secondary school students were used as subjects in the study. The results clearly indicate that self-concept of ability is related to achievement. Hence, there seems to be some basis for hypothesizing a correlation between self-concept and academic achievement.

Studies have also indicated that there is a congruence between self-concept and vocational choice. Oppenheimer (1966) in a study with 81 male college students found a correlation between empirically keyed occupational interests and self-concept to be significant. Morrison (1962) administered a self-concept instrument and an occupational interest inventory to a group of first-year nursing trainees and to a group of sophomore education majors. The results showed that the nursing trainees reflected greater identification with nurses and the education majors reflected greater identification with teachers.

Rogers (1951, 1954, 1959) has implied that the self is the nucleus of personality. Support for this implication is evidenced in the literature. Cowen (1954) found that persons with low self-concepts were less predisposed toward authoritarian attitudes than persons with high self-concepts. Research also indicates that persons with authoritarian personalities tend to favor other persons who are authoritarian. Rhode (1951) found that air commanders tend to prefer subordinates having authoritarian personalities.

Other studies done with military personnel have indicated that often the career military man has a rather authoritarian-type personality. Medalia (1955) found a negative concept toward re-enlistment more often among low authoritarians than among high authoritarians. French (1955) found that high authoritarians in the Air Force more readily accepted military ideology than did low authoritarians. Holland's (1966) research also points to the fact that individuals tend to select occupations which they believe to be compatible with their self-structures. He assumes that whenever a person selects a vocation, he does so as an attempt to satisfy his perceived needs. He further contends that should an individual select an occupation that is inconsistent with his personality pattern, he will not be able to succeed in that occupational environment. This being the case, there is a need for continuing research directed toward a more scientific approach to educational and vocational guidance through a better identification of students' self-concepts. A continuation of research should help to give college and public school personnel the knowledge necessary for assisting students in the selection of educational and occupational goals that are congruent with their aptitudes, interests, abilities and self-structure.

Dawkins (1957), at a liberal arts university, conducted a study relative to this one and Hope (1960) did similar research at a denominational university. In respect to these two studies, the results of the proposed study may have implications for a comparative study that will improve the effectiveness of academic and vocational guidance at liberal arts, denominational, and land grant universities. The anticipated improvement will find its basis in an effort to assist students in selecting a curriculum that is congruent with their aptitudes, interests. and self-concepts.

CHAPTER III

PROCEDURES AND RESEARCH DESIGN

Introduction

As mentioned Chapter I, information was obtained on the 723 students involved in the study by administering three noncognitive tests and combining the results of these tests with data which the Texas A&M Counseling and Testing Center had gathered on the students. Tests administered by the author were the "Self-Rating Scale," the "F-Scale," and the "Military Ideology Scale." A certain amount of anonymity was achieved by directing the students orally as well as with a written form to identify themselves by their permanent identification numbers only. The students were further informed both orally and in writing that no information concerning any individual would be made available to anyone and that only group information pertaining to the evaluated population would be made available. A copy of this form may be seen in Appendix A.

The students were required to take the "Scholastic Aptitude Test" prior to their admission to Texas A&M University. The Counseling and Testing Center personnel obtained the students' curriculum choices and their fathers' educational levels, in addition to computing their predicted grade point ratios for the first semester of the freshman year. The military or civilian status of the subjects was determined by the investigator with assistance from personnel in the School of Military Sciences at Texas A&M University.

Scoring Procedures

"Self-Rating Scale." The "Self-Rating Scale" consists of 43 adjectives describing favorable personal characteristics. The students responded to each adjective on the basis of a one-to-five continuum with a "one" indicating that the adjective is completely nondescriptive of him and a "five" indicating that the adjective is completely descriptive. The students responded to each adjective three times for the purpose of measuring self-concept, self-acceptance, and self-ideal.

Each copy of the instrument was over-printed on two IBM 503 electronic scoring sheets in order to facilitate the speed and accuracy of scoring. Self-concept was measured by having the students respond in "Column A" to the 43 adjectives with instructions to keep in mind the question: "What kind of person do I believe I am?" Then self-acceptance was measured by instructing the students to respond to the same adjectives according to the question: "How much do I like being this kind of a person?" Finally, self-ideal was measured by having the students respond with the question in mind: "What kind of a person ought I to be?"

The "Self-Rating Scale" scores, recorded by the students on IBM 503 electronic scoring sheets, were read by a 1231 Optical Mark Page Reader at the rate of 2,000 sheets per hour. The Optical Mark Page Reader was connected to an IBM 1401 Computer. The scores were then transcribed onto magnetic tape. Next, using an IBM 7094 Digital Computer, the test scores were converted to a different format and reproduced on punched cards. Each student's total "Self-Rating Scale" score was summarized in addition to seven specific self dimensions in each of the three major categories: self-concept, self-acceptance, and self-ideal. Each of the seven dimensions consisted of seven of the 43 original adjectives. The dimensions and their respective adjectives are as follows:

Intellectual - accurate, clever, creative, intellectual, imaginative, logical, studious

Emotional - calm, confident, happy, merry, mature, optimistic, stable

Physical - agile, attractive, coordinated, fashionable, healthy, presentable, strong

Social - acceptable, considerate, dependable, friendly, helpful, kind, tactful

Motivational - ambitious, busy, competitive, dynamic, purposeful, persistent, successful between the discrepancy scores and the perceived-self scores. As a result of this finding and that of Lipsitt (1958), only the results of the perceived-self were statistically analyzed.

For purposes of determining low, normal, and high self-concept, the total self-concept scores and the seven sub-scores were divided into thirds according to numerical scores. Therefore, a student in the lower third was arbitrarily assumed to have a low self-concept, a student in the middle third was assumed to have a normal self-concept, and a student in the upper third was assumed to have a high self-concept. A copy of the "Self-Rating Scale" may be seen in Appendix B.

"F-Scale." The "F-Scale" consists of 37 statements concerning social issues. All of the statements with the exception of number 14 reflect an authoritarian point of view. The students responded to each statement on a one-to-five continuum with "one" expressing strong disagreement and "five" expressing strong agreement. Responses were recorded on IBM 503 electronic scoring sheets and were later read by the 1231 Optical Mark Page Reader at the rate of 2,000 sheets per hour. The responses were scored by an IBM 1401 Computer and then transcribed onto magnetic tape. Following the same procedures that were applied to the "Self-Rating Scale," the "F-Scale" scores were reproduced on punched cards.

Statement 14 is permissive rather than authoritarian. This reversal necessitated a slight modification in scoring which was accomplished by assigning the responses to this statement a proportionately opposite response within the five point continuum. For example, if a student responded to statement number 14 with a "one", the computer authomatically changed this response to a "five."

Each student's total "F-Scale" score and nine subscores within the "F-Scale" were computed, with a high numerical score indicating authoritarianism and a low score indicating equalitarianism. The nine sub-scores according to Adorno _et.al_. (1950) are as follows:

Conventionalism - rigid adherence to conventional, middle-class values

Authoritarian submission - submissive, uncritical attitude toward idealized moral authorities of the ingroup

Authoritarian aggression - tendency to be on the lookout for, and to condemn, reject, and punish people who violate conventional values

Anti-intraception - opposition to the subjective, the imaginative, the tenderminded

Superstition and stereotypy - the belief in mystical determinants of the individual's fate; the disposition to think in rigid categories

Power and "toughness" - preoccupation with the dominance-submission, strong-weak, leader-follower dimension; identification with power figures; overemphasis upon the conventionalized attributes of the ego; exaggerated assertion of strength and toughness

Destructiveness and cynicism - generalized hostility, vilification of the human

Projectivity - the disposition to believe that wild and dangerous things go on in the world; the projection outwards of unconscious emotional impulses

Sex - exaggerated concern with sexual "goings on."

Low, normal, and high degrees of authoritarianism were arbitrarily determined by dividing the students, according to their numerical scores, into thirds. Students falling in the bottom third were assumed to reflect low degrees of authoritarianism, students in the middle third were assumed to possess normal degrees of authoritarianism, and those students in the upper third were assumed to have high degrees of authoritarianism. A copy of the "F-Scale" may be found in Appendix C.

"Military Ideology Scale." The "Military Ideology Scale" (Altman, 1967) consists of 20 statements taken from

The Air Officer's Guide (1962). The instrument was used as a means of measuring the degree to which members of the tested population agree to certain officer-oriented military ideology. The students responded to each statement on a one-to-five continuum with "one" indicating strong agreement and "five" indicating strong disagreement. High scores were indicative of unfavorable attitudes toward military ideology and low scores indicated favorableness toward military ideology. All of the statements except number five were favorable. This reversal was eliminated in the scoring procedures by assigning proportionately opposite numbers in the one-to-five continuum. For example, if a student responded with a "one", the 7094 Computer reversed this response to a "five."

Concurrent validity was determined by administering the instrument to 30 Air Force officers serving as staff members in the School of Military Sciences at Texas A&M University, and to 30 civilian professors from the university who had never served in any branch of the military. The professors were selected instead of civilian students because of their similarities to the Air Force officers with respect to age and socio-economic status. Only those statements which were answered differently by the professors and the Air Force officers at least at the 0.05 level of confidence, as measured by the "Kolmorgrov-Smirnov Two

Sample Test" (Siegel, 1960), were used in the study. Those statements which failed to distinguish significantly between professors and Air Force Officers were answered by the tested population but were not scored. Fourteen of the twenty statements proved to be significant. These statements and the level of confidence at which they distinguished between military and civilian personnel are as follows:

	Statement	*P*
1.	A military man who salutes smartly and proudly can be counted on to perform his duty in the same fashion.	0.05
2.	The rank and insignia of a commissioned officer are the mark of a well-trained man capable of doing any job.	0.05
5.	Military assignments do not offer a man opportunities for developing his initiative.	0.01
6.	A military officer is usually better suited to lead political discussions than a civilian is.	0.05
7.	Character is built by knowing your weaknesses and conquering them.	0.01
8.	Military courtesies are a part of every officer's duties.	0.05

	Statement	P
10.	If military courtesies are ignored, he who does so should be reprimanded.	0.05
11.	When military courtesy is lacking in a military unit, discipline will always suffer.	0.01
13.	Officers' children should not socialize with enlisted men's children.	0.05
14.	Unfailing courtesy should be extended to those who are in positions of authority.	0.01
15.	The armed forces have been responsible for the major gains made by the United States.	0.05
17.	Accomplishment of the mission is the most important objective of command.	0.05
18.	The religious and spiritual welfare of the members of a command is an important factor in developing individual pride, morale, and self-respect.	0.01
19.	There are more opportunities for professionalism to be shown in the armed services than in civilian vocations.	0.01

The students marked their responses on IBM 503 electronic scoring sheets. As with the "Self-Rating Scale" and the "F-Scale," the "Military Ideology Scale" scores were read by a 1231 Optical Mark Page Reader. The scoring was done with an IBM 7094 Digital Computer and Fortran IV programming. The scores were transcribed onto magnetic tape and then transferred onto punched cards. A copy of the "Military Ideology Scale" may be seen in Appendix D.

"Scholastic Aptitude Test." The "Scholastic Aptitude Test" (*College Entrance Examination Board*, 1967) yields a verbal score, a mathematical score, and a total score. The total testing time is three hours. Members of the tested population marked their responses on IBM 503 electronic scoring sheets which were scored by the Educational Testing Service in Princeton, New Jersey.

Total scores from the "Scholastic Aptitude Test" are used in conjunction with high school quarter rank for admission to Texas A&M University. A graduated scale is employed with lower high school quarter rankings requiring higher total "SAT" scores. For example, if a student is in the first quarter (lowest quarter) of his high school graduating class, he must obtain a higher total "SAT" score than a student in the fourth quarter (highest quarter) of his graduating class. The admission scale is listed below.

High School Quarter	Required Total "SAT" Score
First Quarter	925
Second Quarter	850
Third Quarter	775
Fourth Quarter	700

The Counseling and Testing Center computes "SAT" norms each September for the fall entering class. The 1967 verbal, mathematical and total means for each of Texas A&M University's nine Colleges are listed in Figure 1.

As mentioned, these are the "SAT" means for the class which entered Texas A&M University in the fall of 1967. The tested population (723 male students) is a sub-population of this group.

Curriculum choice, military or civilian status, and father's educational status. The students selected their curriculum choice and determined their Corps or civilian status by way of mail prior to the on-campus freshmen orientation. However, they were allowed to change their decisions during the orientation. The Counseling and Testing Center placed each student according to his selected major into one of the nine Colleges. Those students who elected to be in the Corps were further subdivided according to their preference for either the Army, Air Force or Maritime R.O.T.C.

College	Verbal Mean	S.D.	Math. Mean	S.D.	Total Mean	S.D.
Agriculture	457.565	82.318	515.610	75.888	974.305	131.961
Engineering	490.104	85.641	579.546	79.995	1069.650	144.581
Liberal Arts	466.137	83.075	505.000	72.007	971.030	126.935
Sciences	504.721	81.880	575.021	76.513	1079.742	132.547
Geosciences	530.083	91.569	577.194	86.964	1107.278	156.079
Vet. Medicine	468.267	75.721	535.588	72.111	1003.856	126.039
Business	447.864	69.195	505.778	74.095	953.641	115.999
Architecture	453.936	68.404	540.491	71.774	994.427	119.190
Maritime Academy	480.371	84.986	516.229	52.181	996.600	110.940

Figure 1. Verbal, Mathematical and Total 1967-68 "SAT" Means for Texas A&M University Freshmen by Colleges (Reproduced by Permission of the Counseling and Testing Center of Texas A&M).

During the on-campus freshmen orientation, the students indicated the amount of education which their fathers had received. This information, along with their curriculum choice and military or civilian preference, was placed on magnetic tape. A program for an IBM 1401 Computer was written to produce the information on punched cards.

Predicted grade point ratio. The predicted grade point ratio for the first semester is computed for all entering freshmen by the Counseling and Testing Center during September of each year. The predicted grade point ratio is based on the following student records:

High school average
Verbal "SAT" score
Mathematical "SAT" score
Total "SAT" score
College Entrance Examination English composition score
College Entrance Examination mathematical achievement.

In addition to the above records, the predicted grade point ratio is derived by a multiple regression formula calculated from the freshman class of the previous year. The formula is:

$$Y = k + b_1X_1 + b_2X_2 + b_3X_3 + \dots .$$

A depiction of the predicted grade point ratio for the freshman class of 1967 may be seen in Figure 2.

The predicted grade point ratio for each student was placed on magnetic tape by the Counseling and Testing Center. By modifying the program, the information needed for

College	H.S.Avg.	BETA WEIGHTS:					CONSTANT:
		SAT-V	SAT-M	SAT-Total	Eng.Comp.	Math Ach.	
Agriculture	.0628 2538	.0016 8775				.0022 8311	-6.1509 7880
Business	.0266 4370				.0015 3579	.0013 6600	-2.4421 6920
Liberal Arts	.0312 9472	.0012 4697	.0019 9744				-3.1446 7200
Science	.0825 9360					.0021 5435	-6.9781 6060
Geosciences						.0050 6509	-1.4262 5240
Architecture	.0223 1205	.0028 3599		.0023 5638			-1.5480 8170
Engineering	.0671 1756					.0015 0862	-5.4148 3850
Pre-Vet. Med.	.0589 1558	.0014 2436	.0022 8180				-5.8017 6770
Maritime	.0529 1047					.0036 2032	-5.2477 0290

Figure 2. Predicted Grade Point Ratio For the Freshman Class of 1967. (Reproduced by permission of the Counseling and Testing Center of Texas A&M University).

the tested population was copied onto another tape. After this tape was produced, a program was written for the IBM 1401 Computer which produced this information onto punched cards.

Statistical Treatment of the Null Hypotheses

At this point a description of the statistical treatment of the five null hypotheses will be given. However, the results of the analyses will be given in Chapter IV.

Null Hypothesis 1: There will be no significant differences with respect to scholastic aptitudes, by Colleges, between students with low self-concepts and students with high self-concepts.

Of the 723 students in the tested population, only 458 were used in testing this hypothesis. There were two reasons for selecting a sub-population. First, only those students whose total self-concept scores fell either in the lower third (232 students) or the upper third (227 students) of the tested population were used. Second, most of the students who selected either the College of Geosciences or the Maritime Academy scored in the middle third. Of those students enrolled in the College of Geosciences, only four scored in the lower third and only three scored in the upper third. Of those students enrolled in the Maritime Academy, four scored in the lower third and one scored in the upper third.

The following information was placed on individual punched cards for each student used in the testing of the hypothesis:

Permanent identification number
Choice of College
Total "SAT" score
Verbal "SAT" score
Mathematical "SAT" score
Total self-concept score.

The students were identified on the punched cards by their permanent identification numbers. An IBM 88 Collater and an IBM 084 Sorter were used for combining each student's total self-concept score and three "SAT" scores with his selected College. An analysis of variance technique was used for testing the hypothesis. The analysis of variance was outlined as follows:

Source of Variance	Degrees of Freedom	Sum of Squares	Means Squares	F
Total	458			
Colleges	6			
High Self-Concept-Low Self-Concept	1			
College x High Self-Concept-Low Self-Concept	6			
Error	445			

A least squares program was used in an IBM 7094 Computer for calculating the analysis of variance. Significant differences of verbal, math, and total "SAT" scores (as revealed by the analysis of variance) among the seven Colleges were further analyzed by "Tukey's W-Procedure" (Steel and Torrie, 1960). This procedure determined the Colleges among which there were significant differences.

Null Hypothesis 2: There will be no significant difference between the total mean score of the civilian students and the total mean score of the military students obtained from the "F-Scale."

The entire population of 723 students was used in the testing of the hypothesis. The 723 members consisted of 456 military students and 267 civilian students. The following information concerning each student was punched onto individual cards:

Permanent identification number
Military or civilian status
"F-Scale" Total score
"F-Scale" sub-scores
    conventionalism
    authoritarian submission
    authoritarian aggression
    anti-intraception
    superstition and stereotypy
    power and "toughness"
    destructiveness and cynicism
    projectivity
    sex.

The punched cards were sorted according to the military or civilian status of each student by an IBM 88 Collater and an IBM 084 Sorter.

The hypothesis was tested on an IBM 7094 Computer. The statistical procedures involved a t-test between the total mean of the military students' "F-Scale" scores and the total mean of the civilian students" "F-Scale" scores. Moreover, nine additional t-tests were used to determine if there were any significant differences among the nine sub-score means of the military students' "F-Scale" scores and the nine sub-score means of the civilian students' "F-Scale" scores. Conclusively, 10 t-tests were used in testing the hypothesis.

Null Hypothesis 3: There will be no significant difference between the total mean self-concept score of those students classified as underachievers and the total mean self-concept score of those students classifield as overachievers.

As previously defined, an underachiever is a student whose midsemester grade point ratio is at least 0.3 of a grade point above his predicted grade point ratio. Since some students had extremely low predicted grade point ratios (e.g. 0.2) and others had extremely high predicted grade point ratios (e.g. 2.8), their underachievement or overachievement was very limited. For this reason, only those students whose predicted grade point ratios fell within a range of 0.6 to 2.4 were used in the testing of the hypothesis. The total number of students whose grade point ratios fell within this range was 409. Of this number, 260 were classified as underachievers and 149 were classified as over-achievers.

The following information was placed on individual punched cards for each of the 409 students:

Permanent identification number
Predicted grade point ratio
Midsemester grade point ratio

Underachiever of overachiever status
Total self-concept score
Self-concept sub-scores
    Intellectual
    Emotional
    Physical
    Social
    Motivational
    Self-in-relation-to-self
    Self-in-relation-to-others.

The punched cards were sorted according to each student's status as an underachiever or an overachiever. This procedure was done with an IBM Collater and an IBM 084 Sorter. The hypothesis was tested on an IBM 7094 Computer by performing a t-test between the total mean of the underachievers' self-concept scores and the total mean of the overachievers' self-concept scores. Additionally, seven other t-tests were used to determine if there were any significant differences among the seven sub-score means of the underachievers' self-concept scores and the seven sub-score means of the overachievers' self-concept scores. A total of eight t-tests was used in testing this hypothesis.

Null Hypothesis 4: There will be no significant difference between the total mean self-concept score of those students whose fathers attended college and the total mean self-concept score of those students whose fathers did not attend college.

All 723 members of the tested population were used in the testing of this hypothesis. Of this number, 413 of the students' fathers attended college and 310 did not. The following information was punched onto individual cards for each of the 723 students:

- Permanent identification number
- Educational status of father
- Total self-concept score
- Self-concept sub-scores
    - Intellectual
    - Emotional
    - Physical
    - Social
    - Motivational
    - Self-in-relation-to-self
    - Self-in-relation-to-others.

The cards were separated according to the college or non-college status of the students' fathers by an 88 IBM Collater and an IBM 084 Sorter. The hypothesis was tested on an IBM 7094 Computer. First, a t-test was used to determine if there was a significant difference between the total mean self-concept score of those students whose fathers attended college and the total mean self-concept score of those students whose fathers did not attend college. Next, seven additional t-tests were used to determine whether there were significant differences among the seven mean sub-scores of those students whose fathers attended college and the seven mean sub-scores of those students whose fathers did not attend college.

Null Hypothesis 5: There will be no significant difference between the mean score of the civilian students and the mean score of the military students obtained from the "Military Ideology Scale."

Of the 723 students used in the testing of the hypothesis, 456 were military students and 267 were civilian students. The following information was placed on individual punched cards for each student:

Permanent identification number
Military or civilian status
"Military Ideology Scale" score.

The cards were separated according to the students' civilian or military status by an IBM 88 Collater and and IBM 084 Sorter. A t-test was performed on an IBM 7094 Computer to determine if there was a significant difference between the mean score of the military students and the mean score of the civilian students as measured by the "Military Ideology Scale."

The results of the testing of the five null hypotheses will be given in the next chapter.

CHAPTER IV

RESEARCH FINDINGS

The results obtained from testing the five null hypotheses will be reported in this chapter. All assumptions underlying the reasons for the results, however, will be given in Chapter V.

Null Hypothesis 1: There will be no significant differences with respect to scholastic aptitudes by Colleges between students with low self-concepts and students with high self-concepts.

Analysis of Variance With Respect to Verbal "SAT" Scores

As mentioned in Chapter III, only those students whose total "Self-Rating Scale" scores ranked in the upper or lower third of the tested population were used in the testing of this hypothesis. The total number used was 458. The hypothesis was tested with three analyses of variance. The first analysis of variance was used to determine the existence of significant differences among the verbal "SAT" scores of the tested population and the self-concept scores and curriculum choices. The results of the statistical procedure are disclosed in Figure 3.

Source of Variation	Degrees of Freedom	Mean Squares	F
Total	458		
Colleges	6	29577.59	4.50**
High-Low	1	24178.99	3.68
Interaction	6	6664.00	1.02
Error	445	6568.32	

** significant at the 0.01 level of confidence

Figure 3. Analysis of Variance with Respect to "SAT" Verbal Scores

Figure 3 indicates that there was no significant interaction between "SAT" verbal mean scores and self-concept. Also there was no significant difference between high and low self-concept with respect to verbal "SAT" scores. There was, however, a significant difference beyond the 0.01 level of confidence among the "SAT" verbal mean scores of the seven Colleges. Since the analysis of variance revealed only the existence of significant differences among the Colleges, an additional technique was used to determine among which Colleges there were significant differences. The technique employed was "Tukey's W-Procedure" (Steel and Torrie, 1960). The results of this procedure are presented in Figure 4.

	Engineering 499.45	Sciences 488.31	Liberal Arts 468.92	Vet. Medicine 461.78	Business 456.50	Agriculture 450.32	Architecture 446.00
Architecture 446.00	53.45**	42.31**	22.92**	15.78	10.50	4.32	0
Agriculture 450.32	49.14**	37.99*	18.60	11.47	6.18	0	
Business 456.50	42.95**	31.81	12.42	5.28	0		
Vet. Medicine 461.78	37.67*	26.53	7.14	0			
Liberal Arts 468.92	30.53	19.39	0				
Sciences 488.31	11.14	0					
Engineering 449.45	0						

** 39.55, significant at the 0.01 level of confidence
* 33.79, significant at the 0.05 level of confidence

Figure 4. Significant Differences Among Colleges With Respect to "SAT" Verbal Scores

As disclosed in Figure 4, those students selecting the College of Engineering had a significantly higher "SAT" verbal mean score, at the 0.01 level of confidence, than students enrolled in the Colleges of Architecture, Agriculture, and Business. The engineering students also had a higher mean, at the 0.05 level of confidence, than students in the Veterinary Medicine curriculum. Students enrolled in the College of Sciences had a verbal "SAT" mean score that was significantly higher, at the 0.01 level of confidence, than the mean score of those students enrolled in the College of Architecture. The students in the College of Sciences also had a significantly higher mean, at the 0.05 level of confidence, than the mean of the students in the College of Agriculture. The students who selected the College of Liberal Arts obtained a verbal "SAT" mean score which was significantly higher, beyond the 0.01 level of confidence, than the mean score of those students who selected the College of Architecture. There were no significant differences of "SAT" verbal mean scores among the Colleges of Veterinary Medicine, Business, Agriculture, and Architecture.

Analysis of Variance With Respect to Mathematical "SAT" Scores

The second analysis of variance was used to determine the existence of significant differences among the mathematical "SAT" scores of the tested population and the self-concept scores and curriculum choices. The results of the analysis of variance are given in Figure 5.

Source of Variation	Degrees of Freedom	Mean Squares	F
Total	458		
Colleges	6	64880.64	10.39**
High-Low	1	9821.11	1.57
Interaction	6	15629.00	2.50*
Error	445	6246.90	

** significant at the 0.01 level of confidence
* significant at the 0.05 level of confidence

Figure 5: Analysis of Variance with Respect to "SAT" Mathematical Scores

As seen in Figure 5, there was no significant difference between high and low self-concept with respect to mathematical "SAT" scores. There was, however, a significant difference at the 0.01 level of confidence among the mathematical "SAT" means of the seven Colleges. "Tukey's W-Procedure" (Steel and Torrie, 1960) was employed to determine among which of the seven Colleges there were signigicant differences. The results of the procedure are depicted in Figure 6.

	Sciences 567.87	Engineering 576.05	Vet. Medicine 545.02	Architecture 535.57	Liberal Arts 515.05	Agriculture 509.08	Business 508.60
Business 508.60	68.27**	67.45**	36.42*	26.97	6.45	.48	0
Architecture 509.08	67.71**	66.97**	35.94*	26.49	5.97	0	
Liberal Arts 515.05	61.82**	61.00**	29.97	20.52	0		
Architecture 535.57	41.30**	40.48**	9.45	0			
Vet.Medicine 545.02	31.85	31.03	0				
Engineering 576.05	.82	0					
Sciences 576.87	0						

** 38.57, significant at the 0.01 level of confidence
* 32.96, significant at the 0.05 level of confidence

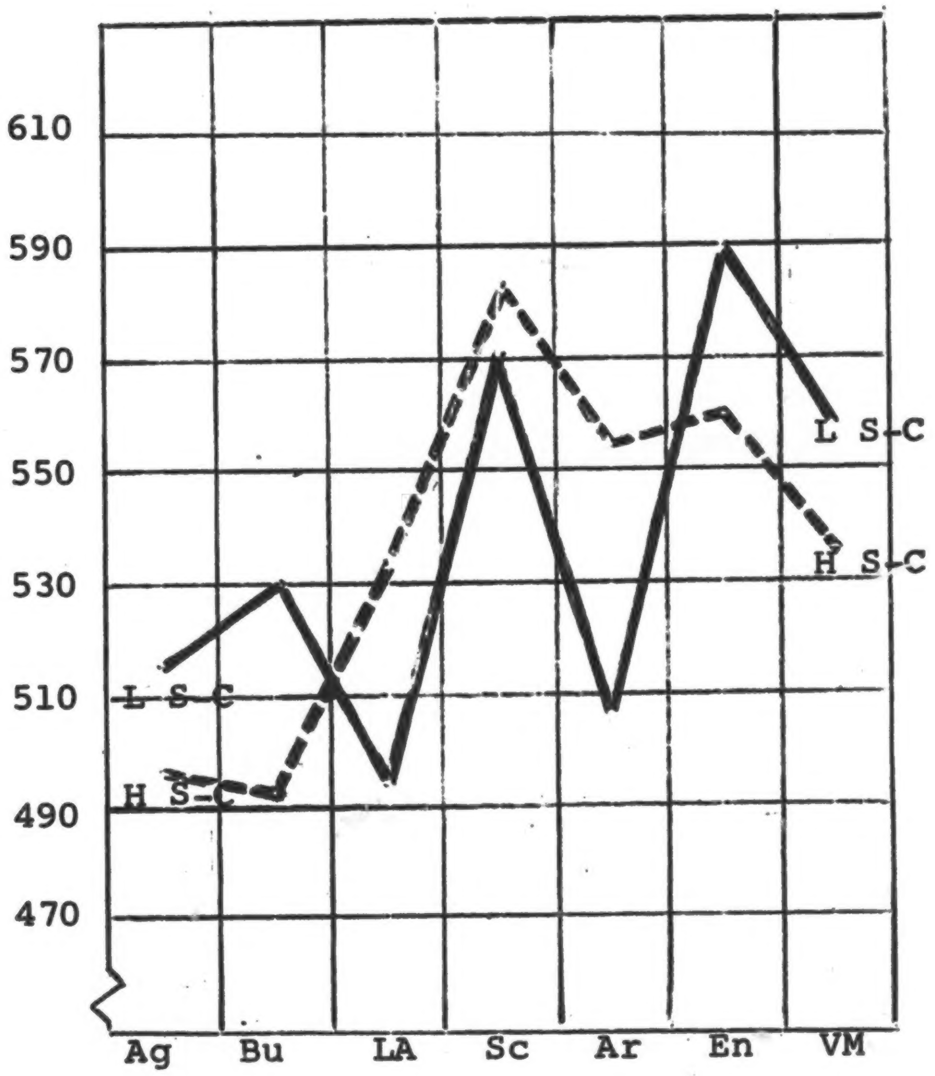
Figure 6. Significant Differences Among Colleges With Respect to "SAT" Mathematical Scores.

As revealed in Figure 6, the students who selected the College of Sciences obtained a mean on the mathematical section of the "SAT" which was significantly higher, beyond the 0.01 level of confidence, than the mean obtained by students enrolled in the Colleges of Business, Agriculture, and Liberal Arts. Students enrolled in the College of Engineering also had a mean on the mathematical section of the "SAT" which was significantly higher, at the 0.01 level of confidence, than the mean obtained by students enrolled in the Colleges of Business, Agriculture, Liberal Arts, and Architecture. The students who selected the College of Veterinary Medicine obtained a mathematical "SAT" mean that was significantly higher, beyond the 0.01 level of confidence, than the mean obtained by students selecting the Colleges of Business and Agriculture. There were no significant differences among the mean scores of the mathematical section of the "SAT" obtained by students in the Colleges of Architecture, Liberal Arts, Agriculture, and Business.

The analysis of variance with respect to the mathematical section of the "SAT" also showed that there was a significant interaction, at the 0.05 level of confidence, between choice of College and self-concept. It appears that this interaction can be attributed to the fact that students within some Colleges had high self-concepts and comparatively low "SAT" mathematical scores, whereas students in other Colleges had high self-concepts and comparatively high "SAT" mathematical scores. The interaction is portrayed by the graph in Figure 7.

As depicted by the graph in Figure 7, there were three Colleges, Liberal Arts, Sciences, and Architecture, in which the students with high self-concepts had a higher "SAT" mathematical mean than did their low self-concept counterparts. In four of the Colleges, Agriculture, Business, Engineering, and Veterinary Medicine, the students with low self-concepts had a higher "SAT" mathematical mean than did the students with high self-concepts. The differences between the mean scores of students with low self-concepts and students with high self-concepts, according to their respective Colleges, are given in Figure 8.

The only significant difference, occurring at the 0.05 level of confidence, was between the mean score of students with low self-concepts and the mean score of students with high self-concepts within the College of Engineering. It appears, however, that the combined differences in "SAT" mathematical means between students with low self-concepts and students with high self-concepts within each of the other six Colleges were instrumental in the significant interaction.



Ag - Agriculture
Bu - Business
LA - Liberal Arts
Sc - Sciences

Ar - Architecture
En - Engineering
VM - Veterinary Medicine

Figure 7. Interaction For the Data in Figure 5.

	Agriculture	Business	Liberal Arts	Sciences	Architecture	Engineering	Vet. Medicine
High S-C	497 N=12	492 N=29	533* N=34	583* N=30	554* N=17	560 N=76	535 N=29
Low S-C	515* N=26	530* N=23	494 N=29	571 N=31	507 N=11	590* N=90	558* N=22
Difference	18	28	39	12	47	30	23
t value	.6668	1.7858	1.9805	.5876	1.6013	2.5287	1.0391
Significance	n.s.	n.s.	n.s.	n.s.	n.s.	0.05	n.s.

* higher "SAT" mathematical mean

Figure 8. "SAT" Mathematical Means With Respect to Self-Concept Within Colleges.

Analysis of Variance With Respect to Total "SAT" Scores

The third analysis of variance was used to determine the existence of significant differences among the *total* "SAT" scores of the tested population, self-concept, and curriculum choices. The results of the analysis of variance are given in Figure 9.

Source of Variation	Degrees of Freedom	Mean Squares	F
Total	458		
Colleges	6	171517.41	9.25**
High-Low	1	64819.88	3.49
Interaction	6	40810.00	2.20*
Error	445	18552.35	

** significant at the 0.01 level of confidence
* significant at the 0.05 level of confidence

Figure 9. Analysis of Variance With Respect to "SAT" Total Scores

As depicted in Figure 9, there was no significant difference between "SAT" total mean scores and self-concept. There was, however, a significant difference at the 0.01 level of confidence, among the seven Colleges with respect to total "SAT" means. Since the analysis of variance only revealed the existence of significant differences among the Colleges, "Tukey's W-Procedure" (Steel and Torrie, 1960) was used to determine among which Colleges there were significant differences. The results of the procedure are presented in Figure 10.

Figure 10 shows that students selecting the College of Engineering had a higher "SAT" total mean, at the 0.01 level of confidence, than the students who selected the Colleges of Agriculture, Business, Architecture, Liberal Arts, and Veterinary Medicine. Students who selected the College of Sciences had a higher "SAT" total mean, at the 0.01 level of confidence, than the students who selected the Colleges of Agriculture, Business, and Architecture. The students in the College of Sciences also had a higher "SAT" total mean, significant at the 0.05 level of confidence, than students in the College of Liberal Arts. There were no significant differences with respect to the "SAT" total means among the Colleges of Liberal Arts, Architecture, Business, and Agriculture.

The analysis of variance with respect to the total "Scholastic Aptitude Test" also disclosed the presence of an interaction, significant at the 0.05 level of confidence, between choice of College and self-concept. It seems that the interaction was caused by students within certain Colleges having comparatively low "SAT" total scores and

	Engineering 1075.51	Sciences 1065.19	Vet. Medicine 1006.80	Liberal Arts 983.97	Architecture 981.57	Business 965.10	Agriculture 959.39
Agriculture 959.39	116.12**	105.80**	47.41	25.58	22.18	5.71	0
Business 965.10	110.41**	100.09**	41.70	18.87	16.47	0	
Architecture 981.57	95.94**	88.62**	25.23	2.40	0		
Liberal Arts 983.97	91.54**	81.82**	22.83	0			
Vet.Medicine 1006.80	68.71**	58.39*	0				
Sciences 1065.19	10.32	0					
Engineering 1075.51	0						

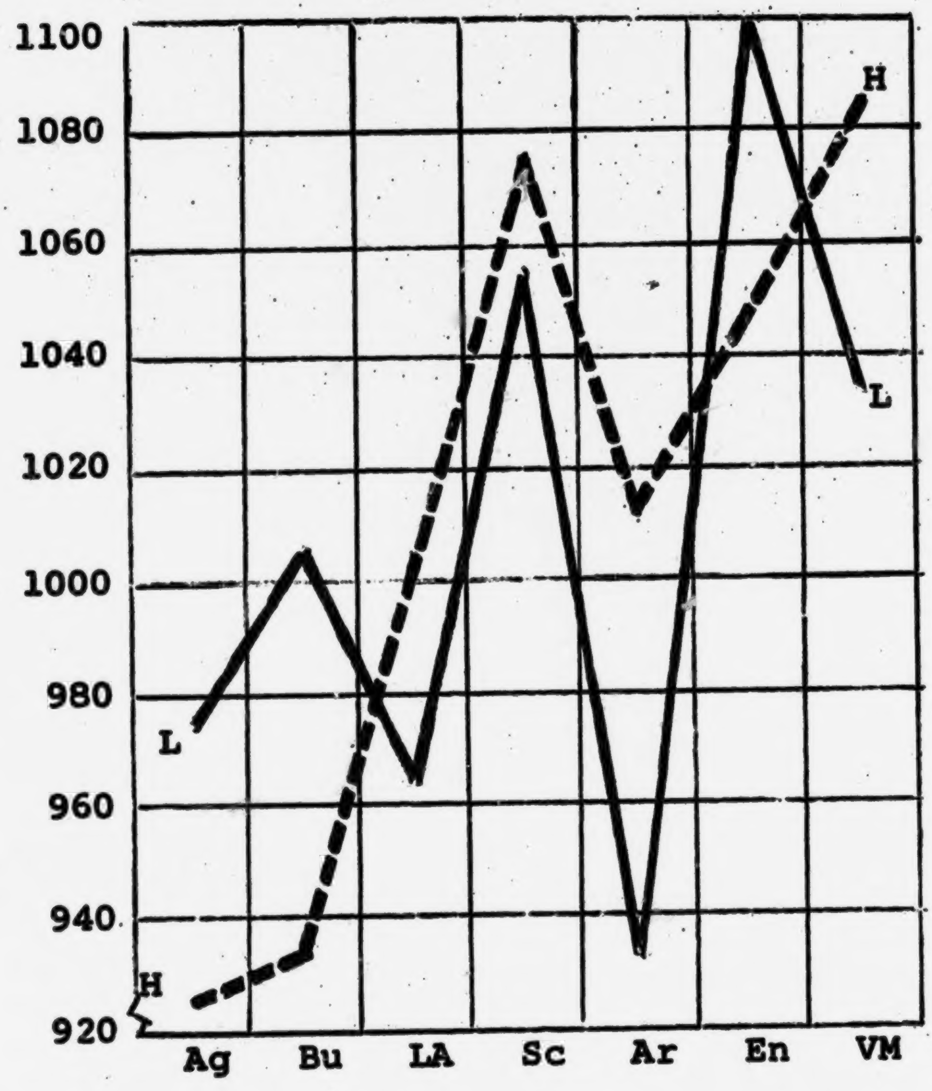
** 66.51, significant at the 0.01 level of confidence
* 56.84, significant at the 0.05 level of confidence

Figure 10. Significant Differences Among Colleges With Respect to "SAT" Total Scores

comparatively high self-concepts; whereas students in other Colleges had comparatively high "SAT" total scores as well as comparatively high self-concepts. This interaction is portrayed by the graph in Figure 11.

As shown by the graph in Figure 11, there were three Colleges, Liberal Arts, Sciences, and Architecture, in which students with high self-concepts had a higher "SAT" total mean than did the students with low self-concepts within these three Colleges. In four of the Colleges, Agriculture, Business, Engineering, and Veterinary Medicine, those students with low self-concepts had a higher "SAT" total mean than the students with high self-concepts within these three Colleges. The differences between the "SAT" total mean scores of low self-concept students and high self-concept students within the seven Colleges are shown in Figure 12.

As shown by Figure 12, the students with high self-concepts in the College of Sciences had a higher "SAT" total mean, at the 0.05 level of confidence, than did the students with low self-concepts. However, the students with low self-concepts in the College of Engineering had a higher "SAT" total mean, at the 0.05 level of confidence, than the students with high self-concepts. The difference within the Colleges of Science and Engineering between the students with low self-concepts and the students with high



Ag - Agriculture
Bu - Business
LA - Liberal Arts
Sc - Sciences

Ar - Architecture
En - Engineering
VM - Veterinary Medicine

Figure 11. Interaction for the Data in Figure 9.

	Agriculture	Business	Liberal Arts	Sciences	Architecture	Engineering	Vet. Medicine
High S-C	925 N=12	933 N=29	1003* N=34	1075* N=30	1012* N=17	1047 N=76	985 N=29
Low S-C	975 N=26	1006* N=23	962 N=29	1056 N=31	934 N=11	1100* N=90	1035* N=22
Difference	50	73	41	19	78	53	50
t-value	1.1354	2.0019	1.2459	2.0821	1.5379	2.6165	1.3592
Significance	n.s.	n.s.	n.s.	0.05	n.s.	0.01	n.s.

* higher "SAT" total mean

Figure 12. "SAT" Total Means With Respect to Self-Concept Within Colleges self-concepts was a major factor in the significance of the interaction at the 0.05 level of confidence. The cumulative differences between the verbal and mathematical "SAT" means of students with low self-concepts and students with high self-concepts in each of the Colleges were also causal in the significant interaction.

Discussion of Hypothesis

With respect to the verbal section of the "SAT," there was no significant difference between the mean scores of students with low self-concepts and students with high self-concepts. There was a difference, significant at the 0.01 level of confidence, among the means of the different Colleges. However, since there was no significant difference between the "SAT" verbal means of students with low self-concepts and students with high self-concepts, it appears that verbal aptitude, as measured by the "Scholastic Aptitude Test," was unrelated to self-concept.

There was no systematic difference between the "SAT" mathematical means of students with low self-concepts and students with high self-concepts. There was a significant difference at the 0.01 level of confidence among the means of the different Colleges, but this difference was not related to high or low self-concept. A significant interaction occurred at the 0.05 level of confidence between self-concept and curriculum choice. The interaction occurred as a result of a cumulative but unsystematic difference between the "SAT" mathematical means of students with low self-concepts and students with high self-concepts within each of the seven Colleges. This is demonstrated by the fact that in the Colleges of Liberal Arts, Sciences, and Architecture the students with high self-concepts had comparatively higher means than did the students with low self-concepts within these three Colleges. A counter-action to this pattern of high self-concept students having "SAT" mathematical means that were higher than the means of the low self-concept students within their Colleges is seen in the Colleges of Agriculture, Business, Engineering and Veterinary Medicine. Within these four Colleges, the students with low self-concepts had higher "SAT" mathematical means than the students with high self-concepts.

As with the "SAT" verbal and mathematical means, there was no systematic difference between the total "SAT" means of students with high self-concepts and students with low self-concepts. Since there were differences among the verbal and mathematical means of the different Colleges, there were also differences among the total "SAT" means. The differences, however, were not attributed to high or low self-concept. There was an interaction at the 0.05 level of confidence between self-concept and curriculum. This interaction may be attributed to inconsistently higher or lower "SAT" total means of students with high self-concepts and students with low self-concepts. This is seen by the fact that in the Colleges of Liberal Arts, Sciences, and Architecture the students with high self-concepts had higher "SAT" total means than the students within their respective Colleges who had low self-concepts; whereas, the students with low self-concepts in the College of Agriculture, Business, Engineering, and Veterinary Medicine had higher means than did their high self-concept counterparts.

Because of an absence of consistent differences between the three "SAT" mean scores of students with low self-concepts and students with high self-concepts, the null hypothesis was not rejected. As reported, in three of the Colleges the students with high self-concepts had a comparatively higher mean on the mathematical and total "SAT" than did the students with low self-concepts; whereas in the other four Colleges the students with low self-concepts had the higher means.

Null Hypothesis 2: There will be no significant difference between the total mean score of the civilian students and the total mean score of the military students obtained by the "F-Scale."

The entire tested population of 723 students (267 civilian students and 456 military students) was used in the testing of this hypothesis. A total of 10 t-tests was used. First, a t-test was employed to determine the presence of significant differences between the total "F-Scale" means of the civilian and the military students. Then, nine additional t-tests were made to determine significant differences between the nine "F-Scale" sub-score means of the civilian and the military students. The results of the 10 t-tests are shown in Figure 13.

Discussion of the Hypothesis

As revealed by Figure 13, there was a significant difference at the 0.05 level of confidence between the total "F-Scale" means of the civilian and the military students, with the higher mean having been obtained by the civilians. It is also notable that the civilian students obtained a higher mean on nine of the ten sub-scores. On six of these sub-scores the civilian mean was significantly higher at either the 0.01 or the 0.05 level of confidence. As mentioned, the civilian students also had a higher total mean, significant at the 0.05 level, than did the military students. Additionally, the civilian students had a significantly higher mean at the 0.05 level of confidence on the superstition and stereotypy and sex sub-scores. The civilians had a higher mean, significant at the 0.01 level of confidence, on the power and "toughness," destructiveness and cynicism, and projectivity sub-scores. The military

Dimensions	Civilian N=267		Military N=456		Difference	t-value‡
	Mean	S.D.	Mean	S.D.		
Total	108.281	14.910	105.599	14.477	+ 2.682	2.383*
Convention.	14.404	2.797	14.088	2.843	+ 0.215	.886
Auth. Sub.	26.101	4.313	25.504	4.144	+ 0.597	1.847
Auth. Agg.	15.034	3.775	14.805	3.711	+ 0.229	.7958
Anti-intra.	18.805	3.101	19.013	3.163	- 0.163	.6708
Sup. and Stereo.	13.442	3.185	12.978	2.792	+ 0.464	2.0480*
Power and "Tough."	14.157	3.116	13.513	3.162	+ 1.108	2.650**
Destruct. and Cyn.	30.161	5.429	29.125	4.985	+ 1.036	2.616**
Projectivity	14.311	3.501	13.577	3.128	+ 0.734	2.913**
Sex	11.127	3.021	10.625	2.923	+ 0.502	1.933*

** 2.576 = significant at the 0.01 level of confidence
* .674 = significant at the 0.05 level of confidence
- = military mean is higher
+ = civilian mean is higher

‡ d.f. = 721

Figure 13. "F-Scale" Means of Civilian and Military Students.

students had a higher mean than the civilian students only on the anti-intraception sub-score, but the difference was not statistically significant.

As stated, the hypothesis was tested on the basis of a difference between the total "F-Scale" means of the civilian and the military students. The civilian students had a total mean that was significantly higher at the 0.05 level of confidence than the total mean of the military students. Therefore, the null hypothesis was rejected at the 0.05 level of confidence. To further support the finding, the civilian students had means on five of the nine sub-scores which were significantly higher, either at the 0.01 or 0.05 levels of confidence, than the means obtained by the military students.

Null Hypothesis 3: There will be no significant difference between the total mean self-concept score of those students classified as underachievers and the total mean self-concept score of those students classified as overachievers.

Only those students who were either classified as underachievers or as overachievers were used in the testing of this hypothesis. There were 149 overachievers and 260 underachievers, totaling 409 students. Eight t-tests were performed to determine the existence of significant differences between the means of the overachievers and the means of the underachievers, as measured by the "Self-Rating

Scale." First, a t-test was employed to determine if there was a significant difference between the total self-concept means of the overachievers and the underachievers. Then, an additional seven t-tests were used to discover the existence of significant differences between the means of the overachievers and the means of the underachievers on the seven sub-scores of the self-concept instrument. The results of the t-tests are given in Figure 14.

Discussion of the Hypothesis

As denoted in Figure 14, the total "Self-Rating Scale" mean of the overachievers was slightly higher than that of the underachievers. The difference, however, was not statistically significant. The overachievers had means that were higher than the means of the underachievers on four of the "Self-Rating Scale" sub-scores. The underachievers had higher means on three of the sub-scores. A significant difference was found at the 0.05 level of confidence on the intellectual self-concept sub-score with the overachievers having obtained the higher mean. On the physical self-concept sub-score, the mean of the underachievers was significantly higher at the 0.05 level of confidence. There were no statistically significant differences between the means of the overachievers and the underachievers on the remaining five sub-scores.

Dimensions	Overachievers N=149		Underachievers N=409		Difference	t-value‡
	Mean	S.D.	Mean	S.D.		
Total	144.752	14.559	144.596	14.602	+ 0.156	0.104
Intell.	22.698	3.356	22.281	3.030	+ 0.417	1.009*
Emotion.	23.382	3.111	23.473	3.283	- 0.091	0.275
Physical	22.651	3.259	23.165	3.067	- 0.514	1.595*
Social	24.564	3.228	24.567	3.066	- 0.003	0.009
Motiva.	24.335	3.144	24.238	3.211	+ 0.097	0.296
S-i-r-t-s.	24.235	3.105	24.023	3.318	+ 0.212	0.637
S-i-r-t-o.	23.047	3.205	22.888	3.201	+ 0.159	0.483

* .674 - significant at the 0.05 level of confidence
+ = Overachiever mean is higher
- = Underachiever mean is higher
‡ d.f. = 407

Figure 14. "Self-Rating Scale" Means of Overachievers and Underachievers.

The hypothesis was tested on the basis of the total "Self-Rating Scale" means of the underachievers and the overachievers. Since there was no statistically significant difference between the two means, the null hypothesis was rejected.

Null hypothesis 4: There will be no significant difference between the total mean self-concept score of those students whose fathers attended college and the total mean self-concept score of those students whose fathers did not attend college.

All 723 members of the tested population were used in the testing of this hypothesis. Of this number, 310 of the students' fathers had attended college and 413 of the fathers had not attended college. Eight t-tests were used to test the hypothesis. First, a t-test was employed to determine the existence of a significant difference between the total "Self-Rating Scale" mean of the students whose fathers attended college and the total "Self-Rating Scale" mean of those students whose fathers did not attend college. Then, seven other t-tests were used for the purpose of discovering differences between the seven sub-score means of the students whose fathers had attended college and the students whose fathers had not attended college. The results of the eight t-tests are given in Figure 15.

Dimensions	Group A (Fathers attended college) N=310		Group B (Fathers did not attend college) N=413		Difference	t-value‡
	Mean	S.D.	Mean	S.D.		
Total	145.090	14.435	145.591	14.867	- 0.501	0.455
Intell.	22.510	3.149	22.436	3.205	+ 0.074	0.310
Emotion.	23.610	3.367	23.719	3.184	- 0.109	0.446
Physical	23.419	3.110	23.041	3.007	+ 0.378	1.653*
Social	24.484	3.254	24.736	3.045	- 0.252	1.073*
Motiva.	24.261	3.141	24.431	3.328	- 0.170	0.699*
S-i-r-t-s	24.374	3.105	24.237	3.337	+ 0.137	0.565
S-i-r-t-o	22.764	3.315	23.140	3.163	- 0.376	1.555*

* .674 = significant at the 0.05 level of confidence
+ = Group A mean is higher
− = Group B mean is higher
‡ d.f. = 721

Figure 15. "Self-Rating Scale" Means of Students Whose Fathers Attended College and Students Whose Fathers Did Not Attend College

Discussion of the Hypothesis

As seen in Figure 15, the students whose fathers did not attend college had a slightly higher total self-concept mean than that of the students whose fathers attended college. The difference, however, was not statistically significant. There were significant differences between the means of the students whose fathers attended college and the means of the students whose fathers did not attend college on four of the seven sub-scores. Of the four significant differences, those students whose fathers attended college had a mean that was higher than the mean of the students whose fathers did not attend college only on the physical self-concept sub-score. The difference was significant at the 0.05 level of confidence. The students whose fathers did not attend college had means significantly higher at the 0.05 level of confidence than the means of the students whose fathers did attend college on three of the self-concept sub-scores; social, motivational, and self-in-relation-to-others.

The hypothesis was tested with respect to a difference between the total "Self-Rating Scale" means of the students whose fathers attended college and those whose fathers did not attend college. There was no significant difference between the means of the two groups; therefore, the null hypothesis was not rejected.

Null Hypothesis 5: There will be no significant difference between the mean score of the civilian students and the mean score of the military students obtained by the "Military Ideology Scale."

The entire tested population was used in the testing of this hypothesis. There were 267 civilian students and 456 military students. A t-test was employed to determine the existence of significant differences between the means of the civilian students and military students on the "Military Ideology Scale." The results of the t-test are given in Figure 16.

Civilian N=267		Military N=456		Difference	t-value‡
Mean	S.D.	Mean	S.D.		
24.704	5.031	22.428	4.347	2.276	6.386**

** 2.576 = significant at the 0.01 level of confidence
‡ d.f. - 721

Figure 16. "Military Ideology Scale" Means of Civilian and Militlary Students.

Discussion of the Hypothesis

As stated in Chapter III, lower scores on the "Military Ideology Scale" are more indicative of favorableness toward officer-oriented military ideology than are higher scores. The reason being that the five point continuum ranged from strong agreement to strong disagreement, with a "one" indicating favorableness to the statement and a "five" indicating unfavorableness. The mean score of military students, 22.428, was significantly lower, at the 0.01 level of confidence, than the 24.704 mean of the civilian students. Therefore, the null hypothesis was rejected at the 0.01 level of confidence. As measured by the "Military Ideology Scale," those students who selected Corps status were significantly more favorable toward military ideology than were the students who selected civilian status.

A discussion of the results of the five hypotheses will be given in Chapter V. The discussion will be directed toward possible causations of the results and recomendations for additional research which may further clarify and extend the present findings.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The results of each tested hypothesis will be summarized and followed by a discussion directed toward a disclosure of possible causes of the results. Recommendations, where applicable, will be given for additional research which may further clarify and extend the present findings.

Conclusions

Null Hypothesis 1: There will be no significant differences with respect to scholastic aptitudes by Colleges between students with low self-concepts and students with high self-concepts.

The null hypothesis was not rejected because there were no systematic differences of scholastic aptitude between students with low self-concepts and students with high self-concepts. This is seen by the fact that the students with high self-concepts in the Colleges of Agriculture, Business, Engineering and Veterinary Medicine had lower mathematical and total "SAT" means than did the students with low self-concepts within these four Colleges. On the other hand, the students with high self-concepts in the Colleges of Liberal Arts, Sciences, and Architecture had higher mathematical and total "SAT" means than did their low self-concept counterparts.

It is doubtful that there is a single clear-cut explanation that will account for these unsystematic differences. There does seem to be, however, a certain pattern within this overt inconsistency. The Texas A&M Counseling and Testing profiles on the "Advanced Occupational Interest Inventory" (Lee and Thorpe, 1956), reveal that the students who are enrolled in the Colleges of Agriculture, Business, Engineering, and Veterinary Medicine are more economically oriented than are the students who are enrolled in the Colleges of Liberal Arts, Sciences, and Architecture. That is, it may be assumed that many students in the former group are comparatively more interested in the economic benefits of a baccalaureate degree than are the students in the latter group. Accepting this assumption, it may be theorized that not only do the self-concepts of many of the high-economically oriented students exceed their scholastic aptitudes, but also that their concepts of the demands of their respective curricula are unrealistic. This is seen in the fact that the high self-concept students in the Colleges of Agriculture, Business, Engineering, and Veterinary Medicine had "SAT" mathematical means that deviated below the mathematical means of their respective Colleges. A comparison of the "SAT" mathematical means of these students and their College "SAT" mathematical means is given in Figure 17.

	Agriculture	Business	Engineering	Vet.Medicine
College Mean	516	506	579	536
Hi. S-C Mean	497	492	560	535

Figure 17. A Comparison Between the "SAT" Mathematical Means of High Self-Concept Students and the "SAT" Mathematical Means of Their Four Respective Colleges.

The high self-concept students in the Colleges of Agriculture, Business, Engineering, and Veterinary Medicine also had total "SAT" means that were lower than the total means of their respective Colleges. A comparison may be seen in Figure 18.

	Agriculture	Business	Engineering	Vet.Medicine
College Mean	974	954	1070	1004
Hi. S-C Mean	925	933	1047	985

Figure 18. A Comparison Between the Total "SAT" Means of High Self-Concept Students and the Total "SAT" Means of Their Four Respective Colleges.

From the comparisons depicted in Figures 17 and 18, there seems to be some basis for postulating that the high self-concepts of many of the students in the Colleges of Agriculture, Business, Engineering, and Veterinary Medicine do exceed their scholastic aptitudes. Furthermore, it can be seen from the two figures that, quite possibly, these students may have an unrealistic concept of the demands of their respective curricula. This is evidenced by their lower mathematical and total "SAT" means as compared with the means of their respective Colleges. As a result of these findings, it is the position here that some students with unrealistically high self-concepts, as related to their scholastic aptitudes, are also economically oriented to the extent that they are comparatively unaware of the demands of their curricula.

As previously mentioned, the students with high self-concepts in the Colleges of Liberal Arts, Sciences, and Architecture had higher "SAT" mathematical and total means than did the students with low self-concepts within these three Colleges. Again, there does not seem to be any single explanation that will account for this finding *in toto*. However, as related earlier, the profiles accumulated by the Texas A&M Counseling and Testing Center on the "Advanced Occupational Interest Inventory" (Lee and Thorpe, 1956) indicate that as a whole, students in these three Colleges are not as economically oriented as the students in the Colleges of Agriculture, Business, Engineering, and

Veterinary Medicine. From these profiles, it may be assumed that many of the students within the former group expect to receive proportionately more than the economic benefits of a baccalaureate degree, as compared with many of the students from the latter group. On the basis of this assumption, it may be extrapolated that the high self-concepts of the students in the Colleges of Liberal Arts, Sciences, and Architecture are commensurate with their scholastic aptitudes. Speculating still further, it appears that these students definitely have not underestimated the demands of their respective curricula. This postulation is reinforced by the fact that the "SAT" mathematical means of these students exceed the "SAT" mathematical means of their respective Colleges. A comparison is given in Figure 19.

	Liberal Arts	Sciences	Architecture
College Mean	505	575	540
Hi. S-C Mean	533	583	554

Figure 19. A Comparison Between the "SAT" Mathematical Means of High Self-Concept Students and the "SAT" Mathematical Means of Their Three Respective Colleges.

The high self-concept students in the Colleges of Liberal Arts and Architecture also had total "SAT" means which exceed the means of their respective Colleges. The total "SAT" mean of the high self-concept students in the College of Sciences was higher than that of the low self-concept students, but it was slightly below the total mean for the College of Sciences. A comparison of these means may be seen in Figure 20.

	Liberal Arts	Sciences	Architecture
College Mean	971	1080	934
Hi. S-C Mean	1003	1075	1012

Figure 20. A Comparison Between the Total "SAT" Means of High Self-Concept Students and the Total "SAT" Means of Their Three Respective Colleges.

On the basis of the reported evidence, it is the position of the writer that high self-concept and low scholastic aptitude disparaties occurred more frequently among those members of the tested population who seem primarily to be pursuing a baccalaureate degree for future economic benefits without realizing the demands of their curricula. The writer further assumes the position that those students whose high self-concepts are congruent with their high scholastic aptitudes are not only less economically oriented than the disparate group, but that they also have a more realistic concept of the demands of their respective curricula.

It is hypothesized here that many of those students whose high self-concepts are disparate with their low scholastic aptitudes are likely either to change their majors or to drop out of school by the end of the freshman year. It is anticipated that this hypothesis will be tested during June of 1968, in a dissertational study which will be conducted by Mr. Arnold LeUnes, an instructor in the Department of Psychology at Texas A&M University. Mr. LeUnes's dissertation will be done in partial fulfillment of the requirements for a doctorate in education from North Texas State University.

Null Hypothesis 2: There will be no significant difference between the total mean score of the civilian students and the total mean score of the military students obtained by the "F-Scale."

The null hypothesis was rejected at the 0.05 level of confidence because the total "F-Scale" mean of the civilian students was significantly higher than that of the military students. The civilian students also had means which were significantly higher than the means of the military students on five of the nine "F-Scale" sub-scores. The civilian means were higher at the 0.05 level of confidence on the superstition and stereotypy and sex sub-scores, and they were higher beyond the 0.01 level of confidence on the power and "toughness," destructiveness and cynicism, and projectivity sub-scores. The military students had one sub-score mean, anti-intraception, which was higher than that of the civilian students. However, the difference was not statistically significant.

It is apparent from the tested sample that the civilian students, as measured by the "F-Scale," were more authoritarian than the military students. Presently, there is no adequate explanation for this. A plausible explanation, however, lies in the formal and informal structure of the Corps of Cadets at Texas A&M University. Within the formal structure, the members of the Corps are required to undergo a rigorous physical and mental regimentation, apart from their academic requirements. Within the informal structure, the Corps members are placed in frequent and unavoidable interface relationships with a variety of personality types. The civilian students, on the other hand, are not required to take part in as many non-academic activities as are the military students. The civilian students can also be more selective in the variety and frequency of their informal interface relationships with peers. From the above description, it is the opinion here that, in many instances, the probability of a more flexible individual's entering the Corps is greater than the probability of a less flexible person's selection of Corps status. It is further assumed that a more rigid individual who initially selects Corps status is less likely to maintain his Corps status for four years than is the less rigid individual.

This is not to imply that career military men are generally less authoritarian than non-military men. Officers especially, through the necessitation of making independent decisions and adhering to conventional values, may become authoritarian during the course of their military careers. The point here is, that from the tested sample it should not be assumed that those who choose the military are predisposed to authoritarianism prior to their actual military status.

It is the recommendation of the writer that the "F-Scale" be readministered to those members of the tested sample who will have remained in the Corps throughout the senior year. Then, their "F-Scale" scores at that time could be compared with their previous scores for the purpose of determining whether any significant score changes had occurred after they had been in the Corps for four years.

It is further recommended that the civilian students also be readministered the "F-Scale" at the end of the senior year, so that the existence of significant changes in in their scores may be detected. It may be that four years of college will affect "F-Scale" scores, regardless of whether the student has Corps or civilian status.

Null Hypothesis 3: There will be no significant difference between the total mean self-concept score of those students classified as underachievers and the total mean self-concept score of those students classified as overachievers.

There was no significant difference in the total mean self-concept score of the students classified as underachievers and the total mean self-concept score of those students classified as overachievers, as measured by the "Self-Rating Scale." Therefore, the null hypothesis was not rejected.

With respect to the "Self-Rating Scale" sub-scores, there were two differences, significant at the 0.05 level, between the underachievers and the overachievers. The overachievers had a significantly higher intellectual self-concept mean and the underachievers had a significantly higher physical self-concept mean. It is very possible that the comparatively high intellectual self-concept of the overachievers was an instrumental factor in their exceeding the academic expectations which the Counseling and Testing Center had statistically predicted for them. That is to say, they were confident in their perceived intellectual aptitudes, and as a result of this confidence, their midsemester grades were higher than predicted.

The comparatively higher physical self-concept mean of the underachievers may have been a factor in their underachievement. Badgett and Dowell (1968), in a study with 574 members of this same tested sample, found that the students with high physical self-concepts were high athletic achievers, and that they had intellectual self-concepts which were significantly lower than those of the low athletic achievers. The researchers concluded that in many instances, the students with high physical self-concepts had relatively low intellectual self-concepts because their interests and values were directed more toward physical than intellectual pursuits. From this conclusion, the writer assumes the position that the underachievement of many of the students from the tested sample may have partially come about as a result of their preferences for physical rather than intellectual activities. Along these same lines, it may also be theorized that the overachievement of other students from the tested group may have been partially due to their preference for intellectual rather than physical activities.

It is recommended that the mean grade point gains or losses of the underachievers and the overachievers be compared at the end of the freshman year. Such a comparison may reveal whether the underachievers will have maintained their present status or if their semester grades will have prompted them to meet or exceed their predicted grade point ratios. The comparison may also reveal if the overachievers will have maintained or fallen below their present status.

Null Hypothesis 4: There will be no significant difference between the total mean self-concept score of those students whose fathers attended college and the total mean self-concept score of those students whose fathers did not attend college.

Since there was no significant difference between the total mean self-concept scores of the students whose fathers attended college and students whose fathers did not attend college, as measured by the "Self-Rating Scale," the null hypothesis was not rejected. With respect to the seven sub-scores, there were four differences between the two groups, all significant at the 0.05 level. The students whose fathers attended college had a significantly higher physical self-concept mean than did the students whose fathers did not attend college. However, the students whose fathers did not attend college had significantly higher means than the students whose fathers did attend college on the social, motivational, and self-in-relation-to-others sub-scores.

There is no completely adequate discourse that will explain the significant differences between the four sub-scores of the two groups. It is the view of the writer that the higher physical self-concept mean achieved by the students whose fathers attended college may be attributed partially to emphases which their parents may have placed on diet, physical appearance, and general physical fitness. It would seem that such emphases are more likely to occur in homes where the paternal educational level is relatively high. Hence, it is concluded that the comparatively high physical self-concept mean of these students was at least partially influenced by the educational level of their fathers.

As previously mentioned, the students whose fathers did not attend college had significantly higher means than the students whose fathers did attend college on the social, motivational, and self-in-relation-to-others sub-scores. It is hypothesized here that the higher social self-concept mean may have occurred partially because of the comparatively low educational status of these students' fathers. This hypothesis finds its basis in the consideration that the students whose fathers did not attend college may perceive social proclivities as possible means to their academic and vocational goals.

The higher motivational self-concept mean of the students whose fathers did not attend college may have reflected an incentive on the part of many of these students to rise above the educational level of their fathers. This incentive may have been ignited by the students' fathers in some instances; whereas it may have come about through the students' own observations in other instances. However, it seems that in either case, the educational status of these students' fathers did have some effect on their relatively high motivational self-concepts.

The students whose fathers did not attend college also had a significantly higher self-in-relation-to-others self-concept. This particular dimension of the self-concept is constructed to measure the degree to which the individual perceives his effectiveness in relating to other people. On the basis of this operational definition, it is the position of the writer that many of the students whose fathers did not attend college perceive their effectiveness in relating to others as a means of achieving their respective goals.

It is the recommendation of the writer that the educational statuses of the students' fathers and mothers be divided into their exact years of formal education. Then, a more precise depiction could be made with respect to the differences of self-concept among students who were influenced by different educational environments.

Null Hypothesis 5: There will be no significant difference between the mean score of the civilian students and the mean score of the military students as measured by the "Military Ideology Scale."

As measured by the "Military Ideology Scale" the students who selected military status were more favorable to military ideology, at the 0.01 level, than were the students who selected civilian status. Hence, the null hypothesis was rejected at the 0.01 level of confidence.

It should be remembered that the items on the "Military Ideology Scale," taken from _The Air Officer's Guide_ (1962), primarily reflect military ideology from an officer's point of view. Most of the students who enter the Corps of Cadets do so with the intention of becoming commissioned officers upon their graduation from college. Hence, it is logical that they would be more favorable to officer-oriented military ideology than those students who selected civilian status.

It is recommended that the "Military Ideology Scale" scores of those students who remain in the Corps for four years be compared with the scores of students who voluntarily change their Corps status to civilian status prior to the receiving of a commission. Such a comparison may reveal whether high scores are indicative of a relatively long term favorableness toward military ideology. It is further recommended that the "Military Ideology Scale" be re-administered to those students who voluntarily leave the Corps, so that the existence of significant changes in favorableness to military ideology may be detected.

Recommendations for Further Research

In the previous discussion of the five null hypotheses, several recommendations were made for additional research that will both clarify and extend the present findings. These recommendations are briefly summarized as follows:

1. That further research be conducted to determine whether the students with high self-concepts and relatively low scholastic aptitudes change majors or drop out of school more frequently than students with high self-concepts and equally high scholastic aptitudes.
2. That the "F-Scale" be re-administered to Corps and civilian students at the end of their senior year for the purpose of determining the existence of significant score changes.
3. That the grade point means of the underachievers and the overachievers be compared at the end of the freshman year for the purpose of determining whether these students will have maintained or changed their statuses as underachievers or overachievers.

4. That the educational statuses of the students' fathers and mothers be divided into the exact number of years of formal education so that a more precise depiction can be made with respect to the differences of self-concept among students who were influenced by different educational environments.
5. That the "Military Ideology Scale" scores of the students who remain in the Corps for four years be compared with the scores of those students who drop out of the Corps, so that it can be determined whether high scores are indicative of a relatively long term favorableness to military ideology.
6. That the "Military Ideology Scale" be readministered to the students who drop out of the Corps so that the existence of significant changes in favorableness to military ideology may be determined.

Though not directly related to the five null hypotheses, there are other recommendations for further research which could be conducted with a minimal amount of data gathering. Much of the necessary information for the proposed research is already on IBM punched cards, and the remaining information is readily accessible.

Recommendations for the proposed research are presented as follows:

1. That a comparison be made between the self-concepts of those students who are classified as low authoritarians and those students who are classified as high authoritarians.
2. That a comparison be made between the grade point averages of those students who are classified as high authoritarians and those students who are classified as low authoritarians.
3. That a comparison be made with respect to gains or losses from midsemester to semester grades between students who are classified as low authoritarians and students who are classified as high authoritarians.
4. That a comparison be made between the college dropout rate of students who are classified as low authoritarians and students who are classified as high authoritarians.

Administrators in the Counseling and Testing Center at Texas A&M University are presently considering the possibility of incorporating some of the methodological procedures and findings of this study into the university's academic-vocational counseling program. It is anticipated that this will be done through a fusion of certain of the students' cognitive and noncognitive characteristics in order to form a basis for more effective counseling procedures. It is the sincere wish of the writer that this study and the anticipated studies which may follow will contribute to the field of academic-vocational counseling.

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APPENDICES

APPENDIX A

Information Sheet

Enclosed you will find three separate opinionnaires. The titles of the opinionnaires are as follows:

"Self-Rating Scale"
"Military Ideology Scale"
"F-Scale"

No booklet is needed for the "Self-Rating Scale." Forty-three (43) adjectives are printed on your answer sheet. You are to write only your student identification number on the answer sheet and nothing more. Simply mark your responses in the blanks corresponding to each adjective.

An answer sheet is inside the "Military Ideology Scale" opinionnaire and the "F-Scale" opinionnaire. You are to write only your student identification number on the answer sheets (as you did on the "Inventory of Self-Concepts.") Respond to the statements of the "Military Ideology Scale" and the "F-Scale" by filling in the blank on the answer sheet which best describes your own feeling about each statement. Please do not write on the opinionnaire booklet - mark your responses on the answer sheet.

Directions are provided with each opinionnaire. However, if you do not understand some part of the directions, please raise your hand and I will try to answer any questions you might have. As soon as you complete one opinionnaire go right on to the next one. When you have finished all three opinionnaires, please bring them to me and then feel free to leave. Please respond to all of the statements.

These opinionnaires are part of a doctoral dissertation sponsored by the U. S. Office of Education for the purpose of better understanding the characteristics of entering freshmen. We believe that this study will enable us to give students more help in many phases of their college lives.

There are no "right" or "wrong" answers - we are only interested in your opinions. Your responses will be kept strictly confidential. Only group information pertaining to your entire freshman class (about 2,500 students) will be made available. No information regarding any individual will be made available to anyone.

If for some personal reason you do not wish to answer the opinionnaires, you will not be made to do so. However, we hope that in light of our pledge to keep your responses confidential and because of the educational contribution which you will make, that you will assist us in this undertaking. Your cooperation is greatly appreciated.

APPENDIX B

"Self-Rating Scale"

NAME ______ LAST FIRST MIDDLE GRADE ______ SEX ______ M OR F DATE OF BIRTH ______ YEAR MONTH DAY

DATE ______ YEAR MONTH DAY AGE ______ SCHOOL ______ CITY ______

INSTRUCTOR ______

IDENTIFICATION NUMBER

NAME OF TEST ______

BE SURE TO MAKE YOUR MARKS
HEAVY AND BLACK

ERASE COMPLETELY ANY ANSWERS
YOU WISH TO CHANGE

INSTRUCTIONS

For

SELF RATING SCALE

1	2	3	4	5
NOT AT ALL	SLIGHTLY	MODERATELY	VERY	EXTREMELY

The above is called a 5 point rating scale. On the following pages are 43 words, descriptive of personal qualities. Would you please rate yourself on each of the 43 words. You are to rate yourself on the 43 words THREE times. PLEASE START as soon as you finish reading the instructions.

(A) On the first rating, "A", keep in mind the question: "WHAT KIND OF A PERSON DO I BELIEVE I AM?" With this question in mind, judge each one of the 43 words and put the rating scale number that you select in Column "A" opposite the appropriate word.

(B) On the second rating, "B", keep in mind the question: "HOW MUCH DO I LIKE BEING THIS KIND OF A PERSON?" (The kind of person you judged yourself in the first rating.) Then fill in Column "B" using the same method as in the first rating.

(C) On the third rating, "C", keep in mind the question: "WHAT KIND OF A PERSON I OUGHT TO BE?" Then fill in Column "C", using the same method as in the first and second ratings.

	A	B	C
acceptable			
accurate			
admired			
affectionate			
agile			
appreciated			
attractive			
ambitious			
busy			
calm			
clever			

NAME ____________ LAST FIRST MIDDLE ____ GRADE ________ SEX ________ M OR F DATE OF BIRTH ________ YEAR MONTH DAY

DATE ________ YEAR MONTH DAY ________ AGE ______ SCHOOL ______________________ CITY ______________

INSTRUCTOR ______________________

NAME OF TEST ______________________

BE SURE TO MAKE YOUR MARKS HEAVY AND BLACK

ERASE COMPLETELY ANY ANSWERS YOU WISH TO CHANGE

IDENTIFICATION NUMBER

☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9
☐	0 1 2 3 4 5 6 7 8 9

1 1 2 3 4 5	2 1 2 3 4 5	3 1 2 3 4 5	4 1 2 3 4 5
5 1 2 3 4 5	6 1 2 **A** 4 5	7 1 2 **B** 4 5	8 1 2 **C** 4 5
9 1 2 **confident** 5	10 1 2 3 4 5	11 1 2 3 4 5	12 1 2 3 4 5
13 1 2 **compassionate**	14 1 2 3 4 5	15 1 2 3 4 5	16 1 2 3 4 5
17 1 2 **considerate** 5	18 1 2 3 4 5	19 1 2 3 4 5	20 1 2 3 4 5
21 1 2 **co-ordinated**	22 1 2 3 4 5	23 1 2 3 4 5	24 1 2 3 4 5
25 1 2 **competitive** 5	26 1 2 3 4 5	27 1 2 3 4 5	28 1 2 3 4 5
29 1 2 **cooperative** 5	30 1 2 3 4 5	31 1 2 3 4 5	32 1 2 3 4 5
33 1 2 **creative** 5	34 1 2 3 4 5	35 1 2 3 4 5	36 1 2 3 4 5
37 1 2 **dependable**	38 1 2 3 4 5	39 1 2 3 4 5	40 1 2 3 4 5
41 1 2 **determined** 5	42 1 2 3 4 5	43 1 2 3 4 5	44 1 2 3 4 5
45 1 2 **dynamic** 5	46 1 2 3 4 5	47 1 2 3 4 5	48 1 2 3 4 5
49 1 2 **friendly** 5	50 1 2 3 4 5	51 1 2 3 4 5	52 1 2 3 4 5
53 1 2 **fashionable**	54 1 2 3 4 5	55 1 2 3 4 5	56 1 2 3 4 5
57 1 2 **happy** 5	58 1 2 3 4 5	59 1 2 3 4 5	60 1 2 3 4 5
61 1 2 **helpful** 5	62 1 2 3 4 5	63 1 2 3 4 5	64 1 2 3 4 5
65 1 2 **healthy** 5	66 1 2 3 4 5	67 1 2 3 4 5	68 1 2 3 4 5
69 1 2 **intellectual** 5	70 1 2 3 4 5	71 1 2 3 4 5	72 1 2 3 4 5
73 1 2 **imaginative**	74 1 2 3 4 5	75 1 2 3 4 5	76 1 2 3 4 5
77 1 2 **kind** 4 5	78 1 2 3 4 5	79 1 2 3 4 5	80 1 2 3 4 5
81 1 2 **logical** 5	82 1 2 3 4 5	83 1 2 3 4 5	84 1 2 3 4 5
85 1 2 **merry** 4 5	86 1 2 3 4 5	87 1 2 3 4 5	88 1 2 3 4 5
89 1 2 **mature** 5	90 1 2 3 4 5	91 1 2 3 4 5	92 1 2 3 4 5
93 1 2 **optimistic** 5	94 1 2 3 4 5	95 1 2 3 4 5	96 1 2 3 4 5
97 1 2 **presentable** 5	98 1 2 3 4 5	99 1 2 3 4 5	100 1 2 3 4 5
101 1 2 **purposeful** 5	102 1 2 3 4 5	103 1 2 3 4 5	104 1 2 3 4 5
105 1 2 **persistent** 5	106 1 2 3 4 5	107 1 2 3 4 5	108 1 2 3 4 5
109 1 2 **realistic** 5	110 1 2 3 4 5	111 1 2 3 4 5	112 1 2 3 4 5
113 1 2 **studious** 5	114 1 2 3 4 5	115 1 2 3 4 5	116 1 2 3 4 5
117 1 2 **stable** 5	118 1 2 3 4 5	119 1 2 3 4 5	120 1 2 3 4 5
121 1 2 **strong** 5	122 1 2 3 4 5	123 1 2 3 4 5	124 1 2 3 4 5
125 1 2 **successful** 5	126 1 2 3 4 5	127 1 2 3 4 5	128 1 2 3 4 5
129 1 2 **sympathetic**	130 1 2 3 4 5	131 1 2 3 4 5	132 1 2 3 4 5
133 1 2 **tactful** 5	134 1 2 3 4 5	135 1 2 3 4 5	136 1 2 3 4 5
137 1 2 3 4 5	138 1 2 3 4 5	139 1 2 3 4 5	140 1 2 3 4 5
141 1 2 3 4 5	142 1 2 3 4 5	143 1 2 3 4 5	144 1 2 3 4 5
145 1 2 3 4 5	146 1 2 3 4 5	147 1 2 3 4 5	148 1 2 3 4 5
149 1 2 3 4 5	150 1 2 3 4 5	151 1 2 3 4 5	152 1 2 3 4 5
153 1 2 3 4 5	154 1 2 3 4 5	155 1 2 3 4 5	156 1 2 3 4 5
157 1 2 3 4 5	158 1 2 3 4 5	159 1 2 3 4 5	160 1 2 3 4 5

APPENDIX C

"F-Scale"

Please rate the following questions with the numbers 1 to 5 according to whether you agree (completely) (5) or agree (not at all) (1).

DO NOT WRITE IN THE TEST BOOKLET. WRITE YOUR ANSWERS ON THE ANSWER SHEET THAT IS PROVIDED

1	2	3	4	5
NOT AT ALL	VERY LITTLE	TO SOME DEGREE	VERY MUCH	COMPLETELY

_____1. Although many people may scoff, it may yet be shown that astrology can explain a lot of things.

_____2. America is getting so far from the true American way of life that force may be necessary to restore it.

_____3. It is only natural and right that women be restricted in certain ways in which men have more freedom.

_____4. Too many people today are living in an unnatural, soft way; we should return to the fundamentals, to a more red-blooded, active way of life.

_____5. It is more than a remarkable coincidence that Japan had an earthquake on Pearl Harbor Day, December 7, 1941.

_____6. The modern church, with its many rules and hypocrisies, does not appeal to the deeply religious person; it appeals mainly to the childish, the insecure, and the uncritical.

_____7. After we finish off the Russians, we ought to concentrate on other enemies of the human race such as rats, snakes, and germs.

_____8. Familiarity breeds contempt.

_____9. One should avoid doing things in public which appear wrong to others, even though one knows that these things are really all right.

____10. One of the main values of progressive education is that it gives the child great freedom in expressing those natural impulses and desires so often frowned upon by conventional middle-class society.

____11. He is, indeed, contemptible who does not feel an undying love, gratitude, and respect for his parents.

____12. Today everything is unstable; we should be prepared for a period of constant change, conflict, and upheaval.

____13. Novels or stories that tell about what people think and feel are more interesting than those which contain mainly action, romance, and adventure.

____14. Reports of atrocities in Eurpoe have been greatly exaggerated for propaganda purposes.

____15. Homosexuality is a particularly rotten form of delinquency and ought to be severely punished.

____16. It is essential for learning or effective work that our teachers or bosses outline in detail what is to be done and exactly how to go about it.

____17. There are some activities so flagrantly un-American that, when responsible officials won't take the proper steps, the wide-awake citizen should take the law into his own hands.

____18. There is too much emphasis in college on intellectual and theoretical topics, not enough emphasis on practical matters and on the homely virtues of living.

____19. Every person should have a deep faith in some supernatural force higher than himself to which he gives total allegiance and whose decisions he does not question.

____20. No matter how they act on the surface, men are interested in women for only one reason.

_____21. Sciences like chemistry, physics, and medicine have carried men very far, but there are many important things that can never possibly be understood by the human mind.

_____22. The sexual orgies of the old Greeks and Romans are nursery school stuff compared to some of the goings-on in this country today, even in circles where people might least expect it.

_____23. No insult to our honor should ever go unpunished.

_____24. Obedience and respect for authority are the most important virtues children should learn.

_____25. There are some things too intimate or personal to talk about even with one's closest friends.

_____26. Although leisure is a fine thing, it is good hard work that makes life interesting and worthwhile.

_____27. After the war, we may expect a crime wave; the control of gangsters and ruffians will become a major social problem.

_____28. What a man does is not so important so long as he does it well.

_____29. Human nature being what it is, there will always be war and conflict.

_____30. It is entirely possible that this series of wars and conflicts will be ended once and for all by a world-destroying earthquake, flood, or other catastrophe.

_____31. Books and movies ought not to deal so much with the sordid and seamy side of life; they ought to concentrate on themes that are entertaining or uplifting.

_____32. When you come right down to it, it's human nature never to do anything without an eye to one's own profit.

_____33. To a greater extent than most people realize, our lives are governed by plots hatched in secret by politicians.

____34. Nowadays when so many different kinds of people move around so much and mix together so freely, a person has to be expecially careful to protect himself against infection and disease.

____35. What this country needs is fewer laws, and agencies, and more courageous, tireless, devoted leaders whom the people can put their faith in.

____36. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped.

____37. No sane, normal, decent person could ever think of hurting a close friend or relative.

APPENDIX D

"Military Ideology" Scale

"MILITARY IDEOLOGY" SCALE

Give one of the five (5) responses to each statement. Mark your responses on the answer sheet. DO NOT MARK ON THIS SHEET.

1	2	3	4
STRONGLY AGREE	SLIGHTLY AGREE	NO OPINION	DISAGREE

5
STRONGLY DISAGREE

1. A military man who salutes smartly and proudly can be counted on to perform his duty in the same fashion.
2. The rank and insignia of a commissioned officer are the mark of a well-trained man capable of doing any job.
3. Many military rules are simply a waste of time.
4. A career military man is held in high regard by the public.
5. Military assignments do not offer a man opportunities for developing his initiative.
6. A military officer is usually better suited to lead political discussions than a civilian is.
7. Character is built by knowing your weaknesses and conquering them.
8. Military courtesies are a part of every officer's duties.
9. If a serviceman ignores military customs he should be censured.
10. If military courtesies are ignored, he who does so should be reprimanded.
11. When military courtesy is lacking in a military unit, discipline will always suffer.

12. Officers should not socialize with their men.

13. Officers' children should not socialize with enlisted men's children.

14. Unfailing courtesy should be extended to those who are in positions of authority.

15. The armed forces have been responsible for the major gains made by the United States.

16. A military officer should never take part in political activity.

17. Accomplishment of the mission is the most important objective of command.

18. The religious and spiritual welfare of the members of a command is an important factor in developing individual pride, morale, and self respect.

19. There are more opportunities for professionalism to be shown in the armed services than in civilian vocations.

20. Military regulations should be followed without deviation.

VITA

V I T A

John L. Badgett, Jr, the son of Mr. and Mr. John L. Badgett, was born in Port Arthur, Texas on November 14, 1937. He graduated from Thomas Jefferson High School in Port Arthur during May of 1956. He entered Lamar State College of Technology in June of 1956. On June 6, 1959, at the end of his junior year at Lamar Tech, Mr. Badgett and the former Wanda Barron were married. A daughter Kimberly Anne was born to the couple the following year. At the end of the spring 1960 semester Mr. Badgett received a B.S. degree in secondary education from Lamar State College of Technology.

In September of 1960, Mr. Badgett assumed a teaching position in the Port Arthur Independent School District where he taught English, coached football, and served as Director of Student Activities at Woodrow Wilson Junior High School during the 1960-1961 school year. During this time Donna Kathleen, a second daughter, was born to the Badgetts. For the next four years Mr. Badgett taught social studies and continued to teach English and serve as Director of Student Activities at Woodrow Wilson. On September 11, 1963, John Leslie Badgett, III, was born to John and Wanda Badgett.

In August of 1965, Mr. Badgett received a M.Ed. in elementary education from Lamar Tech and in September of that year he entered Texas A&M University where he served as a graduate assistant for two years in the Department of Education and Psychology. The following year he was an instructor in that department. During his three years at A&M he taught Social Studies for Elementary Teachers, Elementary School Curriculum, Foundations in American Education, and Educational Psychology.

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